

ON THE TRIBE DEJEANIINI OF THE MUSCOID FAMILY
HYSTRICIIDÆ, WITH FIVE NEW GENERA.

BY CHARLES H. T. TOWNSEND,

Director of Entomological Stations, Lima, Peru.

The Dejeaniine flies are among the most striking and interesting of the muscoid group. They are characterized not only by a general strong macrochaetal development showing in more or less densely placed spines on the abdomen and scutellum, which they share with many other forms of the *Hystriciidæ*, but also by the unique development of the palpi which are greatly elongated.

The tribe as so far known to the writer divides naturally into the four subtribes *Dejeaniina*, *Paradejeaniina*, *Lasiopalpina* and *Dejeaniopina*, the last three being monotypic. Only the last two have pilose eyes. The *Dejeaniina* divide into three group-units, the *Dejeaniæ* with discal spines on intermediate abdominal segments and normal palpi, the *Eulasiopalpiæ* without discal spines and with ciliate palpi, and the *Eudejeaniæ* without discal spines and with normal palpi. *Dejeania* was founded by Robineau Desvoidy in 1830, who included therein at the time the two species *brasiliensis* RD. and *capensis* RD., but without designating either as the type. In 1910 Coquillett designated the latter, which equals *Stomoxys bombylans* F., as type of the genus. *Lasiopalpus* was founded by Macquart in 1847, with the single species *flavitaris* Meq. which is thus the type. *Eudejeania* was founded by the writer in 1912, with designation of *subalpina* T. as type.

All the Dejeaniine flies known up to twenty years ago, other than *Lasiopalpus*, were grouped under the single genus *Dejeania*. Brauer and von Bergenstamm were the first to cut any of the forms loose from this combination, characterizing the genus *Paradejeania* in 1893 for *Dejeania rutilioides* Jaenicke and *Jurinia myrrhea* Say, BB. As the latter is a *momen nudum*, the former stands as the type of the genus. In 1898 Brauer added to the genus, *Jurinia hystrix* Riley (nec F., nec Will.) MS from North America, *Jurinia amethystina* Macquart from Brazil (Minas-Geraës), *Jurinia bicolor* Macquart (nec Wd.) from Colombia and Cayenne (two species, probably MS in coll.), *Jurinia nigricalyp-*

trata Macquart from Brazil (Minas-Geraës), and *Hystericia erythrina* Bigot from Brazil (Bahia). The remainder of the forms continued under the old genus until 1912, when the writer established the genus *Eudejeania* for certain strikingly large and distinct forms which range high in the Andean montanya.

The African *Dejeania capensis* RD. (equals *bombylans* F., Wd.) is not congeneric with any of the American forms, hence its designation as type of the genus leaves the latter without nearer generic reference than *Eudejeania*, which is strikingly contrasted with the older and better known forms. The figure 21, on page 44 of the third edition of Dr. Williston's Manual, labeled *Paradejeania* sp., is evidently not that genus. It has almost exactly the form and aspect of *Eudejeania* female; if discal spines are wanting on the intermediate abdominal segments (they appear to show on the left side of second segment), and the proboscis and palpi are both very elongate, it is probably *Eudejeania*. The figure 60, on page 366 of same work, also labeled *Paradejeania* sp., is neither *Paradejeania* nor *Eudejeania*, but has the palpal characters of *Jurinia*.

Tachina armata Wiedemann was taken by Brauer and von Bergenstamm in 1889 as typical of the American forms, and is here made the type of the new genus *Adejeania*. *Tachina corpulenta* Wiedemann and *Dejeania vexatrix* Osten Sacken are strikingly contrasted with *Adejeania* and the other American forms, the second showing an approach to *Servillia* in its long dense pubescence and the first exhibiting bristles in place of this pubescence. Both are made the types of new genera. *Eulasiopalpus* is erected for forms with ciliate palpi, long proboscis and bare eyes. The following synoptic table will show the distinctions between all of these forms with greatly elongated palpi, including the new genus *Dejeaniops* Townsend whose characterization is given in full in a forthcoming paper on the *Hystericidae* of the Andean montanya.

Table of Tribe Dejeaniini.

- | | |
|---|---|
| 1. Eyes thickly pilose, third antennal joint straight on front border and widened-subtruncate apically | 2 |
| Eyes practically bare, third antennal joint more or less convex on front border and always rounded apically | 3 |
| 2. Palpi long and narrow, of even width except on the more narrowed base, not ciliate; proboscis elongate and slender; parafacials hairy; abdomen subovate and gently emarginate anally, no discal spines on intermediate segments; front | |

tarsi of female not conspicuously widened (Dejeaniopina)

Dejeaniops gen. nov.

- Palpi much widened on apical half, gradually narrowing basally, densely ciliate with long hair; proboscis short and stout; parafacials bare; front tarsi of female strongly widened (*Lasiopalpina*).....*Lasiopalpus* Mcq.
3. Palpi narrow, gradually narrowing basally, ciliate with long hair; proboscis slender and conspicuously longer than head-height; parafacials hairy; abdomen emarginate anally (Dejeaniina: *Eulasiopalpiæ*)... *Eulasiopalpus* gen. nov.
Palpi not ciliate.....4
4. Palpi gradually widened from base distally, proboscis short; abdomen subquadrate and conspicuously emarginate anally; front tarsi of female strongly widened (*Paradejeaniina*).....*Paradejeania* B. & von B.
Palpi of even width on distal two-thirds or more; proboscis elongate and slender (Dejeaniina: *Dejeaniæ* and *Eudejeaniæ*).....5
5. Discal spines on dorsum of intermediate abdominal segments (*Dejeaniæ*)
Dejeania R.D. (Africa)
No discal spines (*Eudejeaniæ*).....6
6. Abdomen subquadrate and deeply emarginate or buttocks-like behind in both sexes; front tarsi of female widened.....*Eudejeania* T.
Abdomen subovate, not broadly buttocks-like behind, at most the hind border of anal segment half as long as greatest width of abdomen and gently emarginate in female; front tarsi of female not widened.....7
7. Abdomen clothed with strong bristles in addition to the spines and differentiated therefrom, front tarsi of male with bristly hairs on inside
Echinotachina gen. nov.
Abdomen with only pubescence in addition to the spines.....8
8. Pubescence short and normal.....*Adejeania* gen. nov.
Pubescence long, dense, even and pronounced, showing conspicuously among the spines, thorax also with a dense pubescence....*Trichodejeania* gen. nov.

Below is a statement of the genera and their types. Whether all these forms belong in one natural tribe remains to be decided by a careful intensive study of the group and its allies. Although it would seem probable that these elongate palpi are not all of common origin, yet none of the forms exhibits any striking departure in its external anatomy from the general characteristics of the group. A comparative study of the first-stage maggots, which the writer has in hand, will conclusively demonstrate the actual affinities.

DEJEANIA R. D. (1830)—Type, *Stomoxys bombylans* F. (equals *Tachina bombylans* Wd., and *Dejeania capensis* R.D.).

LASIOPALPUS Mcq. (1847)—Type, *L. flavitarsis* Mcq.

PARADEJEANIA B.B. (1893)—Type, *Dejeania rutilioides* Jaen.

EUDEJEANIA T. (1912)—Type, *E. subalpina* T.

DEJEANIOPS T. gen. nov.—Type, *D. ollachea* T. n. sp.

EULASIOPALPUS gen. nov.—Type, *Lasiopalpus albipes* T. n. sp.

ADEJEANIA gen. nov.—Type, *Tachina armata* Wd. (equals *Dejeania armata* BB.).

TRICHODEJEANIA gen. nov.—Type, *Dejeania rexatrix* O.S.

ECHINOTACHINA gen. nov.—Type, *Tachina corpulenta* Wd.

The following descriptions are abridged from the originals which will appear in the forthcoming paper on the *Hystriciidæ* of the Andean montanya.

Dejeaniops ollachea sp. nov.

Length, 11 mm. One female, Ollachea, San Gaban canyon, southeastern Peru, about 9,500 ft., Feb. 2 (Townsend). Head yellowish, faintly golden. Palpi rust-yellow, antennæ yellowish-brown to reddish, arista black. Parafrontals and thorax brownish-olive, scutellum pale. Abdomen soft black, with clear light yellow on sides of anterior two-thirds. Legs rust-yellow, femora largely blackish. Wings and tegulæ smoky, tegulæ thickly microscopically black-pubescent. Palpi and proboscis both very long and slender, parafacials and eyes pilose.

Lasiopalpus albipes sp. nov.

Length, 14 mm. One male, Huascaray ridge, northern Peru, about 7,000 ft., Sept. 22 (Townsend). Head smoky-silvery; epistoma, front, antennæ and palpi black or blackish. Thorax, scutellum, abdomen and femora black, tibiæ pale yellowish, tarsi yellowish-white. Wings infuscated, tegulæ smoky-black. The third antennal joint is rounded apically, eyes bare, parafacials hairy, and proboscis about one and one-fourth times head-height.

The following are descriptions of two new species of *Eudejeania* recently secured by the writer in the high Andean region of central Peru:—

Eudejeania punensis N. sp.

Length of body to ends of spines, 14 to 16 mm.; of wing, 11.5 to 13.5 mm.; of palpi, 3.5 to 4 mm.; width of abdomen, 7 to 8 mm. Fifty-two females and one male, Pachacayo valley, about 12,000 feet, in puna region about half way between Oroya and Jauja, Peru, March 27 and 28, 1913, on flowers of *Viguiera*-like composite. The immense preponderance of the females is worthy of remark.

Differs from *Eudejeania uigra* T. by its much smaller size and by the following colorational characters:—Legs with their spines, palpi and first two antennal joints rust-yellow, the second antennal joint more or less slightly smoky on base. Wings only lightly smoky, the veins rust-yellow giving the wing bases a distinct yellow tinge. Parafrontals dusky olive. Occipital pile pale brassy. Thorax and abdomen dark brown to black, showing smoky pollinose on anal segment in oblique view and somewhat less so on third segment.

Type, TD4135 (female fly, reproductive system, first-stage maggot). Has strap-like uterus and deposits blackish maggots, probably on foliage.

Eudejeania alpina n. sp.

Length of body to ends of spines, 20 mm.; of wing, 16.5 mm.; of palpi, 5 mm.; width of abdomen, 11 mm. Two females, Pachacayo valley, about 12,000 feet, with preceding species on same flowers, March 28, 1913.

Differs from *Eudejeania punensis* T. by its much larger size and by the following colorational characters:—Head deeply fuscous, practically black, only narrow orbits and wider border in front of eyes brassy. Antennae wholly black. Frontalia silvery to tawny pollinose in oblique view. Palpi yellowish or tawny, but deeply tinged with smoky. Occipital pile golden to brassy. Wings deeply smoky throughout including bases; veins brown to blackish, not showing yellowish to the unaided eye. Legs slightly deeper rust-yellow, the femora more reddish.

Type, TD4139 (female fly, reproductive system).

It should be noted here that the writer, in all of his collecting, has never before found such an abundance of Dejeanine flies in the height of activity as that encountered at the above-mentioned locality in Pachacayo valley, forty-five of the above specimens having been taken there in an hour or so of fitful sun and rain during the forenoon of March 28. Hundreds of *E. punensis* could doubtless have been collected in the locality had sun and time permitted. An approach to such abundance, but in a state of dulled activity, was encountered in October, 1895, in the Sacramento Mountains of southern New Mexico (Ann. & Mag. N. H., 6th ser., vol. 19, No. 110, pp. 144-145).